

# ADVANCES IN HEPATOLOGY

Current Developments in the Treatment of Hepatitis and Hepatobiliary Disease

Section Editor: Eugene R. Schiff, MD

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## Benign Lesions of the Liver

K. Rajender Reddy, MD  
Professor of Medicine  
Director of Hepatology  
Medical Director of Liver Transplantation  
University of Pennsylvania

### G&H Can you describe the different types of benign liver tumors?

**KRR** Benign lesions of the liver are generally of three types: hemangioma, focal nodular hyperplasia (FNH), and hepatic adenoma. These are vascular hepatic lesions. Hemangiomas contain fibrous tissue and small blood vessels that eventually grow and range in size from less than 1 cm in diameter to over 10 cm, the so-called “giant” cavernous hemangiomas. FNH lesions are also solid with a typical “central scar” and nodule formation as seen on an imaging study or surgically excised lesion. Hepatic adenoma is an infrequently encountered, typically solitary lesion which carries a small risk of spontaneous rupture or malignant dedifferentiation, and even may have a focus of a malignancy.

### G&H What patients should be screened for these lesions?

**KRR** There are no official recommendations and no real need to screen populations for these lesions because the vast majority of them do not require intervention. Hepatic adenomas are primarily seen in women of child-bearing age, whereas hemangiomas and FNH lesions are prevalent in men as well. Causally, hepatic adenomas have been linked to the use of oral contraceptives (OCs); FNH lesions and hemangiomas are not, but may grow under the influence of OC use. Generally, these liver lesions are found incidentally through a variety of radiologic imaging studies conducted for any number of reasons and seldom are they discovered after the onset of any symptoms.

### G&H Is the discovery of these lesions an indication to stop taking OCs?

**KRR** If hepatic adenoma is suspected, OC use should be stopped because these drugs promote the growth of the lesion. Likewise, pregnancy should also be avoided in these cases because it can promote growth and, on rare occasions, lead to rupture of the lesions. If the lesions are hemangiomas or FNH, the relative risk of OC-dependent growth is low and thus OC use and pregnancy do not constitute contraindications.

### G&H Will stopping OC use allow the lesions to resolve over time?

**KRR** FNH lesions and hemangiomas are not affected by stopping OC use but hepatic adenomas have been known to decrease in size and even completely regress with the discontinuation of OC. However, this resolution can be misleading. We reported a case in which an adenoma seemed to disappear and years later the patient presented again with abdominal pain and was diagnosed as having cholecystitis. Her gall bladder was removed and a small necrotic area was found at the site of the previously noted adenoma, which indicated a malignancy. Therefore, we prefer to resect adenomas if surgically possible, even if they are known to possibly have regression when the patient ceases OC use.

### G&H Are there any presenting symptoms that may justify screening specifically for these lesions?

**KRR** In the occasional case where patients are symptomatic, they will present with vague abdominal pain, which may be constant and generally manifests in the upper right quadrant of the abdomen. Even more rare is a case where an adenoma has ruptured, resulting in abdominal pain and bleeding into the abdomen, which in turn manifests as severe hemodynamic compromise.

**G&H** Can you describe the appropriate course of treatment in symptomatic patients?

**KRR** There are no medical therapies for patients with benign lesions of the liver. The best surgical treatment for symptomatic patients is operative resection. Some centers remove these lesions laparoscopically, which does not allow for complete evaluation of the liver, so I recommend open resection as the best option. Patients should be made aware of the relative risk/benefit ratio of the surgery and weigh this against their degree of abdominal discomfort before proceeding with surgery. Hepatic resection is major surgery and should be undertaken by clinicians who are experienced in hepatobiliary surgery.

**G&H** Are there treatment options for patients for whom open surgery is not an option?

**KRR** Hemangiomas can be treated with radiation therapy, although this is infrequently done. Lesions can also be eliminated by ligating the feeding blood vessel or embolizing the feeding artery. However, these lesions are generally seen in young people who are of good operative risk and, if indicated, operative resection is their best method of treatment.

**G&H** How do clinicians differentiate between truly benign lesions and those that are potentially cancerous, particularly in asymptomatic patients?

**KRR** Diagnosis of potentially cancerous lesions should be based on clinical presentation, radiologic imaging, and, if needed, follow-up imaging studies. Truly benign lesions do not change or grow over time in the same way as those that are malignant. Radiologic studies have high sensitivity and specificity to diagnose and differentiate the various benign lesions, therefore the clinical picture, radiologic studies, and, if needed, follow-up studies should reliably diagnose a particular lesion.

**G&H** Is biopsy an option for the diagnosis of cancerous lesions?

**KRR** The typical, knee-jerk response among many clinicians is to perform a biopsy on lesions found through an imaging study. However, biopsy is not recommended in the case of benign lesions of the liver for several reasons. These are vascular lesions with the potential to bleed if they are biopsied. Proper biopsy would require sampling a large section of the lesion and fine needle aspiration would not provide enough tissue for proper examination. Finally, biopsy can create a false sense of security in the case of an adenoma because a focus of malignancy can be present in an area not sampled.

**G&H** Is liver transplantation ever indicated in patients with benign lesions?

**KRR** Transplantation is extremely rare for these patients but it has been described in the literature. Patients with familial diabetes or glycogen storage disease can present with multiple hepatic adenomas. Complete resection is very difficult to achieve in these patients and transplantation may be the only method for removing all of the tumors.

### Suggested Reading

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